

monly recognised as an Egyptian word. He deduces that the Judaeans encountered the Akkadian boat word *tubbû* used for the Ark in the [Flood] story and Hebraised it as *tēbā*. ‘In this case’, he asserts, ‘the original consonants are less important ...’ In some Babylonian version of the Flood story no longer extant, he says, ‘the word *tubbû* must have occurred in place of *eleppu*, “boat”’. This is really far-fetched, explaining an obscure Hebrew word by a more obscure Babylonian one!

In the Gilgamesh 11 account of the Flood, the vessel is described as a cube, which is quite impractical, but Finkel takes the oblong shape of Noah’s wooden Ark as a development of it. He has to assume unknown variations to the existing Babylonian versions to explain other differences, so any changes could have occurred much earlier. Despite his arguments for the era of the Exile, the Babylonian texts are inconclusive. While the Babylonian compositions reflect the local situation, where reed vessels were normal, the Hebrew account does not tell of a reed vessel but a wooden one, which would be less appropriate in Babylonia where wood was scarce. The following sections of Genesis also indicate a region unlike Babylonia, for Noah planted a vineyard (9: 20), and people moved to the plain of Shinar, according to Genesis 11: 1. If we believe the Hebrew account is the original, we shall have to assume the oblong wooden ark, which was perhaps better suited to a different region of the Near East, was re-imagined as an enormous reed coracle in Babylonia with approximately the same floor area as Noah’s Ark. The many agreements between the Babylonian and the Hebrew narratives have to be balanced against the many disagreements, as has often been done. The ‘Ark Tablet’ adds to both! It does not prove the Hebrews borrowed the Flood narrative from the Babylonians; both may have had a common ancestor.

Engaging incidents in Finkel’s work keep the reader’s interest alive. When he gave a volunteer a box of odd fragments of tablets to sort, she found a strange one which he saw fitted into the famous Babylonian Map of the World and suggests that the Babylonian Ark rested in the region of Mount Ararat! However, other Babylonian tales placed it nearer to Iraq, in the mountains to the east or north, while Genesis simply says ‘in the mountains of Ararat’ which could suit any of the locations.

Experts will discuss details of the cuneiform tablet while biblical scholars assess its significance for years to come. Intelligibly explaining technical aspects, *The Ark Before Noah* relates a new discovery brilliantly, sharing the excitement of a leading expert as he disentangles part of one version of an ancient story.

Eric H. Cline, 2014 1177 B.C.: The Year Civilization Collapsed, Turning Points in Ancient History Series, Princeton and Oxford: Princeton University Press, ISBN 9780691140896, xx+264pp, US\$20

Reviewed by Christopher J. Davey

This book was the winner of the 2014 *Best Popular Book* award by the American Schools of Oriental Research and its author was reportedly nominated for a Pulitzer Prize in 2014. It is certainly an easy book to read, but its designation as ‘popular’ should not be construed to mean simple. Cline draws on current scholarship to provide a systematic narrative of the Late Bronze Age in the Aegean and Eastern Mediterranean in all its complexity.

Eric Cline is Professor of Classics and Anthropology, Director of the Capitol Archaeological Institute, and former Chair of the Department of Classical and Near Eastern Languages and Civilizations at The George Washington University, in Washington DC. He was educated at Dartmouth, Yale, and the University of Pennsylvania and he has archaeological field experience in Israel, Egypt, Jordan, Cyprus, Greece, Crete, and the United States. He is currently Co-Director of the excavations at Tel Kabri. At least three of his 16 books, *The Trojan War: A Very Short Introduction* (2013), *Digging for Troy* (2011) and *The Battles of Armageddon: Megiddo and the Jezreel Valley from the Bronze Age to the Nuclear Age* (2000), overlap with the subject of this book.

The book is dedicated to James Muhly, Professor Emeritus of Ancient Near Eastern History in the Department of Near Eastern Languages and Civilizations at the University of Pennsylvania, former Director of the American School of Classical Studies at Athens, and preeminent scholar on Bronze Age metallurgy. Professor Muhly, who is a meticulous and gracious scholar, will no doubt be pleased with this book although he may not think the 28-page bibliography sufficient.

The main benefit of the book is the inclusion of recent research; the Uluburun shipwreck and new Ugaritic inscriptions are cases in point. Also important is the breadth of its coverage and its scene-setting explanations. Paradoxically, while Cline describes an inter-related Late Bronze Age in the Aegean and Eastern Mediterranean, today’s academia is such that scholars are often quite unaware of research developments in neighbouring regions. This book, while intended for a popular audience, may help to address this insularity; its currency and the status of its author should promote a more scholarly readership.

The first three chapters describe the Late Bronze Age and its inter-relatedness. There are many interesting stories here that benefit from their context in the overall narrative of the period. Chapter Four describes the evidence for destruction, site by site, and the last chapter discusses the reasons for the end of the Bronze Age. Destructions are far from widespread, and some areas such as Lebanon appear to have none, although Ugarit to the north and

Megiddo to the south were violently destroyed. Megiddo recovered, Ugarit did not.

Interestingly there is a comparatively lengthy section on the Exodus, although the discussion focusses on the lack of evidence outside the biblical narrative for the event. Some speculation about the implications that it may have had in Egyptian and Levantine history could have been made, however, this would require a discussion about the nature of the event itself, which is beyond the scope of the book.

Cline concludes that there was no single cause for the events that brought the Bronze Age to an end, but rather there was a 'perfect storm' of factors that had a cumulative effect. This approach has a certain air of desperation about it. The influx of Dorians from the north is rightly rejected as a cause, but the possibility that this tradition had its origins with the influx of other earlier peoples is not considered. 'Drought' and 'famine' in the Aegean and the Eastern Mediterranean are often mentioned, but climactic cooling is only obliquely alluded to once (147) and environmental effects in neighbouring regions are generally not considered.

In 1997 Gerard C. Bond, Lamont–Doherty Earth Observatory at Columbia University, and colleagues published a paper postulating approximately 1,500-year climate cooling cycles in the Holocene, mainly based on petrologic tracers of drift ice in the North Atlantic (Bond, G. *et al.*, 1997 A Pervasive Millennial-Scale Cycle in North Atlantic Holocene and Glacial Climates, *Science* 278 (5341): 1257–1266). The last occurrence of this event was the Little Ice Age in the late Eighteenth Century: the French Revolution was driven by starving peasants whose crops had failed while Britain only just survived the resource–demographic contraction.

The desertion of the Anatolian sites is mentioned by Cline (156), who suggests that it may have been caused by the disruption of trade routes. But it is hard to imagine that village existence was dependent on trade. He does not speculate on the whereabouts of the departed inhabitants.

There is a plausible scenario that the 1500-year cooling cycle occurred on schedule at about 1200BC causing crop failures in the less productive areas of Europe and Anatolia triggering the movement of people to warmer more fertile areas about the Mediterranean. Unable to adequately defend themselves against the intruders, the inhabitants of these areas set sail in search of refuge and new homelands. Where they had pre-established associations, such as at Ashkelon, settlement was orderly, but elsewhere battles were fought and cities destroyed. This is not the place to advocate that this caused the end of the Bronze Age, it is only to note that this plausible hypothesis is not included amongst the many alternatives discussed by Cline.

The movement of Anatolian inhabitants is significant because these people took with them the knowledge of iron technology, which was to become crucial for the final

step in the Three-Age System. This diffusion illustrates the nature of technological development, which is often hastened in periods of disruption when technologies travel, processes by necessity may need modification and different technologies intermingle. Strictly speaking the subject is beyond the scope of this book, however, the fact that people started to use iron instead of bronze could itself be sufficient justification to pronounce the end of the Bronze Age. While bronze continued to be used in significant quantities, it was often superseded by iron. In this scenario the Bronze Age ceased conceptually as a result of technological change and diffusion; the book does not engage with any of this.

Cline's references to 'collapse' are rather ambiguous. What collapsed? Certainly the palace economies of the Mediterranean ceased, but it is stretching it to say that 'civilization' ended. Archaeology at many sites has demonstrated continuity from Bronze Age to Iron Age. As these terms are used in the title for effect it would have been difficult for Cline to be too definitive.

The discussion of the Late Bronze Age as 'a system' lacks precision. Human systems tend to be complex and open. The reference to the butterfly effect (161) is not relevant to such systems, however within the overall system there may have been deterministic nonlinear sub-systems to which it could apply. The references to the Global Financial Crisis of 2008 as a modern example of collapse are unconvincing (175). World markets now appear to have developed a certain level of independence from Wall Street, individual bank capital adequacy ratios have been strengthened and underlying asset values have become critical. During Hurricane Sandy in 2012, Wall Street was closed for two days without adversely affecting world markets. A collapse on Wall Street now may be unfavourable for the United States, but not necessarily catastrophic for the rest of the world. The Global Financial Crisis may in fact be an example of the way complex systems transform themselves to promote continuity.

The book has an index and a description of the many foreign personal names mentioned therein, and for those who want to take the subject further there is a comparatively long bibliography and endnotes. Suggested pronunciations of the names in the *Dramatis Personae* would have helped the general readership. There are numerous typos and some errors of fact, Bernard Knapp for example was at Glasgow, not Edinburgh University, but these do not influence the thrust of the book.

Cline's writing style is straightforward and his explanations of points of detail and inclusion of interesting asides bring his readers with him while adding to their knowledge. Ancient history should not just be an esoteric subject for the academy, but an interesting tale that forms part of everyone's general knowledge. Cline makes this possible. While regrettably it is unlikely that the population will *en masse* flock to read the book, it is certainly important for those with an interest in the ancient Aegean, Eastern Mediterranean and the Bible.